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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/029,115 | 10/19/2001 | Ying Luo | A-70229/RMS/DHR | 2856 |
| 20350 | 7590 | 05/17/2005 | EXAMINER | |
| TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834 | | | GIBBS, TERRA C | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1635 | |

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/029,115

Applicant(s)

LUO ET AL.

Examiner

Terra C. Gibbs

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3 and 16-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3 and 16-26 is/are allowed.
- 6) ☒ Claim(s) 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Sequence search alignment</u> . |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 10, 2005 has been entered.

Claims 2, 3, 16, 21, and 22 have been amended. New claim 27 is acknowledged.

Claims 2, 3, and 16-27 are pending in the instant application.

Claims 2, 3, and 16-27 have been examined on the merits.

Response to Arguments

Applicants Amendment and Response filed February 10, 2005, has been considered. Rejections and/or objections not reiterated from the previous office action mailed September 2, 2004 are hereby withdrawn. The following rejections and/or objections are either newly applied or are reiterated and are the only rejections and/or objections presently applied to the instant application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 27 is rejected under 35 U.S.C. 102(e) as being anticipated by Plowman et al. [U.S. Patent No. 6,680,170].

Claim 27 is drawn to the *complement* of a recombinant nucleic acid, comprising a nucleic acid sequence having at least 98% identity to a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 1, 3, and 5. It is noted that interpreted broadly, this claim reads on fragments having at least 98% identity to a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 1, 3, and 5.

Plowman et al. disclose a primer derived from R99-43-11 with the following sequence: 5'-AGCCGCTGCCCCTCCTCTACTGT-3' (see SEQ ID NO:60). This sequence is 100% complementary to nucleobases 3454-3476 of SEQ ID NO:1 of the instant invention (see attached sequence alignment). Since the primer disclosed by Plowman et al. is 100% identical to the complement of SEQ ID NO:1 and consists of a

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fragment of SEQ ID NO:1 as broadly claimed, the primer derived from R99-43-11 disclosed by Plowman et al. anticipates claim 27.

Claim 27 is rejected under 35 U.S.C. 102(b) as being anticipated by Cowser et al. [U.S. Patent No. 6,110,664].

Cowser et al. disclose a phosphorothioate antisense oligonucleotide targeted to G-alpha-S1 with the following sequence: 5'-tgctgctgctgtttattta-3' (see SEQ ID NO:52). This sequence is 100% complementary to nucleobases 1112-1127 of SEQ ID NO:1 of the instant invention (see attached sequence alignment). Since the phosphorothioate antisense oligonucleotide disclosed by Cowser et al. is 100% identical to the complement of SEQ ID NO:1 and consists of a fragment of SEQ ID NO:1 as broadly claimed, the phosphorothioate antisense oligonucleotide disclosed by Cowser et al. anticipates claim 27.

Conclusion

Claims 1, 2, and 16-26 are allowable. The closest prior art is that of Ippeita et al. (FEBS Letters, 2000 Vol. 469:19-23). Ippeita et al. disclose the molecular cloning of MINK1 (see GenBank Accession Number AB035698 and Figure 2). MINK1 is 96.8% identical to SEQ ID NO:1 and 97% identical to SEQ ID NO:2 of the instant invention (see attached sequence alignments). Ippeita et al. do not disclose a recombinant nucleic acid, comprising a nucleic acid sequence having at least 98% or 99% identity to

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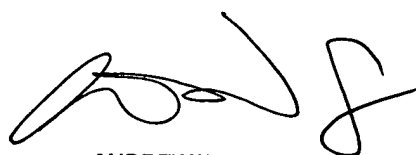
a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 1, 3, and 5, or having at least 98% or 99% identity to an amino acid sequence selected from the group consisting of SEQ ID NOs: 2, 4, and 6, wherein said recombinant nucleic acid encodes a MINK3 protein as instantly claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terra C. Gibbs whose telephone number is 571-272-0758. The examiner can normally be reached on 9 am - 5 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wang Andrew can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tcg
April 21, 2005



ANDREW WANG
SUPERVISORY PATENT EXAMINER
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